



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,387	01/25/2002	Guttorm Rudi	P01,0342	1591

7590 11/02/2006

SCHIFF HARDIN & WAITE

Patent Department
6600 Sears Tower
233 South Wacker Drive
Chicago, IL 60606

EXAMINER

HASAN, SYED Y

ART UNIT PAPER NUMBER

2621

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,387

Applicant(s)

RUDI, GUTTORM

Examiner

Syed Y. Hasan

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 15 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 - 11 is/are allowed.
- 6) ☒ Claim(s) 1 - 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 08/15/2006 have been fully considered but they are not persuasive.

In re page 8 applicant argues with respect to claim 1, that the present application requires that the holder for wide magnetic recording tape have four generally rectangular lateral walls. Claim 1 further requires that the first pair of tape hubs be mounted between two opposite ones of the lateral walls, and also requires that the second pair of tape hubs be mounted between these opposite ones of the lateral walls for rotation around respective rotational axes. The term "lateral walls" as used in claim 1 was intended to refer to the four side walls of the tape cartridge that are present between the top and the bottom of the tape cartridge. In the Adams cartridge, by contrast, the hubs are mounted for rotation between the top side 120 and the bottom side 121 of the cartridge. Claim 1 was also intended to claim that the rotation of the two pairs of hubs occurs around respective rotational axes that also proceed between the two opposite ones of the lateral sides. Claim 1 has been amended to make this explicit. Since the hubs in the Adams reference rotate around respective rotational axes that proceed between the aforementioned top side 120 and bottom side 121, this is one basis as to why the Adams reference does not anticipate claim 1.

In response the examiner respectfully disagrees. The examiner has pointed out the four lateral walls in the Adams reference. Examiners interpretation of the four lateral walls include the top side 120 and the bottom side 121 as part of the lateral walls

depending upon viewers perspective. In this configuration the respective rotational axes of said first pair of tape hubs and the respective rotational axes of said second pair of tape hubs all become parallel to each other and perpendicular to said transport direction. The amended claim discusses central space being defined as at a first side of one of the tape hubs in first pair and at a second opposite side of the tape hubs in second pair. This is clearly taught by Adams reference in figure 3.

Applicant further argues that claim 1 uses the term "axis" (an imaginary line) rather than "axle" (a physical element). Therefore, it is proper to refer to the "axis" as proceeding through the opposite lateral walls.

In response, the examiner submits the previous argument regarding the interpretation of the lateral walls as shown in the Adams reference.

Applicant continues to argue that in substantiating the rejection of claims 1 and 2 as being anticipated by Adams, the examiner stated the Adams reference discloses an opening in at least one of the lateral walls allowing access to a central space inside the lateral walls. The original language of claim 1 of the present application requires, however, that the first magnetic recording tape, that is carried by the first pair of tape hubs, span this central space, and also requires that the second magnetic recording tape, carried by the second pair of tape hubs, also span this central space. The examiner did not identify any structure in the Adams reference which the examiner believes satisfies those limitations of claim 1. In the Adams reference, Applicant does not believe that either of the tapes 140 or 141 spans a central space, to which access is provided through an opening of the lateral walls. Although the examiner did not so state

in the Office Action, it is possible the examiner is interpreting the entirety of the volume encompassed by the housing in the embodiment shown in Figure 4 of the Adams reference to be a "central space" and the opening in which the recording heads 220 and 221 are disposed as being an opening allowing access to this central space. If this is the case, although the two tapes in the embodiment of Figure 4 may be considered to be located in the central space, as broadly interpreted, they clearly do not span the central space, even under such a broad interpretation.

In response examiner observes that the definition of "central space " in the amended claim is the space between the tape hubs. Examiners interpretation of this "central space" as discloses by Adams invention in Figure 3 clearly shows the the central space as being defined at a first side of one of the tape hubs in first pair and second opposite side of the other tape hub in the second pair. "Access" does not necessarily imply "head access", it could mean any type of "access".

Nevertheless, independent claim 1 has been amended to preclude such an unjustifiably overbroad interpretation by stating that the central space is defined at a first side thereof by one of the tape hubs in the first pair, and at a second, opposite side thereof by one of the tape hubs in the second pair. Clearly, no such structure is disclosed in the Adams reference. This structure is shown in several of the figures of the present application, including Figures 3 and 5 wherein a first of the pairs of tape hubs can be considered to be the hubs 15 and 17, with the tape wound thereon spanning (proceeding below) the central space in which the recording head 14 is located, and the other pair of hubs can be considered as the hubs 16 and 18, with

the tape carried thereon spanning (proceeding above) the same central space in which the head 14 is located. This is also clearly shown in Figures 8 and 9.

In response examiner further asserts that the revised claim interpretation has been explained above since per the claim both pairs of tape hubs are on opposite side of each other. This structure is evident in figure 3 of Adams invention.

Examiner therefore rejects claim 1 in light of the above mentioned and hence claim 2 is also rejected.

In re page 10 applicant argues with respect to claim 3 - 6, that claims 3 - 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Adams in view of Saliba et al. Each of those claims depend from claim 1, therefore the above distinctions between the subject matter of claim 1 and the disclosure of the Adams reference are relevant to this rejection of claims 3 and 4, since each of those claims depends from independent claim 1. For the reasons discussed above in connection with independent claim 1, even if the cartridge disclosed in the Adams reference were modified in accordance with the teachings of Saliba et al, the subject matter of claims 3 and 4 still would not result, because the Adams reference does not disclose or suggest all of the elements of independent claim 1.

In response the examiner respectfully disagrees, since claim 1 above has been rejected, therefore claims 3 – 4 are also rejected.

In re page 11 applicant argues with respect to independent claim 5, that the Adams reference discloses all of the subject matter thereof except for a holder having a width perpendicular to the transport direction of at least approximately 24mm, for which

the examiner relied on the Saliba et al reference.

In substantiating the statement that the Adams reference discloses all of the subject matter of claim 5 except for the aforementioned width of the magnetic recording tape, the examiner stated that the Adams reference discloses a holder assembly having a central space therein that is spanned by each of the first and second magnetic recording tapes. The above discussion with regard to the "central space" in claim 1 is equally relevant with regard to the use of this same term in claim 5. In order to preclude the same unjustifiably overbroad interpretation of claim 5, a similar amendment has been made in claim 5 as the amendment discussed above in connection with claim 1, namely to state that the central space is between one of the tape hubs in the first pair and one of the tape hubs in the second pair. No such structure is disclosed in the Adams reference, and since the four-hub embodiments shown in Figures 8A and 8B of the Saliba reference make use only of a single magnetic recording tape, the Saliba et al reference can provide no teachings whatsoever with regard to two magnetic recording tapes respectively wound on two pairs of hubs.

The subject matter of claim 5, therefore, would not have been obvious to a person of ordinary skill in field of designing cartridges for magnetic recording tape under the provisions of 35 U.S.C. §103(a) based on the teachings of Adams and Saliba et al. Claim 6 adds further structure to the non-obvious combination of claim 5, and therefore would not have been obvious to such a person of ordinary skill for their same reasons discussed above in connection with claim 5.

In response the examiner respectfully disagrees. As pointed out in paragraph # 8

below what each of the prior art references teaches and has indicated how and why these references would have combined to come to arrive at the claimed invention.

Applicant makes several arguments in opposition to the examiner's rejection which will be addressed below.

Applicant argument regarding "central space" has been discussed in claim 1 above.

Applicants argument regarding Saliba's teaching of two magnetic recording tapes was not discussed in the rejection cited for claim 5. Applicant cannot show on-obviousness by attacking the references individually where, as here, the rejection is based on a combination of references. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Saliba was teaching the wide tape only. Hence applicant's argument is not persuasive because Saliba was not relied upon for the argued feature.

Examiner therefore rejects claim 5 in light of the above mentioned and hence claim 6 is also rejected.

Allowable Subject Matter

2. Claims 7 –11 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed to a tape drive with a base plate having four drive motors mounted on the base plate with respective drive shafts. Independent claim identifies the unique distinct feature "a central two of said drive shafts with a largest of

said spaces therebetween". The closet prior art, Rudi (US 5963395) discloses a tape drive with a base plate having four drive mounted on the on the base plate engaging four drive shafts but does not have two of the drive shafts with largest of said space therebetween.

Therefore the claims are allowed over prior art.

Specification

4. Claims 8 and 9 are objected to because of the following informalities:

Regarding claims 8 and 9, degrees should follow the number 180.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Adams (US 5,911,379).

7. (1) with regards to claim 1:

Adams discloses a holder for wide magnetic recording tape comprising:

four generally rectangular lateral walls (figure 1, column 2, lines 61 - 63)

an opening in at least one of said lateral walls allowing access to a central space

inside said lateral walls (figure 1, column 2, lines 63 -65)

a first pair of tape hubs mounted between two ones of said lateral walls for

rotation around respective rotational axes proceeding through said two opposite ones of said lateral walls, (column 3, lines 31 – 34), said first pair of tape hubs having a first magnetic recording tape thereon for winding and unwinding in a transport direction between said first pair of tape hubs and spanning said central space (figure 1, column 3, lines 19 - 23)

a second pair of tape hubs rotatably mounted between said opposite ones of said lateral walls for rotation around respective rotational axes, (column 3, lines 31 – 34) said second pair of tape hubs having a second magnetic recording tape thereon for winding and unwinding in said transport direction between said second pair of tape hubs and spanning said central space (figure 1, column 3, lines 23 - 28) said central space being defined at a first side thereof by one of the tape hubs in said first pair and at a second, opposite side thereof by one of the tape hubs in said second pair (fig 3, 152, col 4, lines 35 – 39); and

the respective rotational axes of said first pair of tape hubs and the respective rotational axes of said second pair of tape hubs all being parallel to each other and perpendicular to said transport direction (figure 1, column 3, lines 43 - 49)

(2) with regards to claim 2:

Adams discloses a holder wherein the tape hubs in said first pair of tape hubs (column 3, lines 31 – 34) are rotatably mounted between said opposite ones of said lateral walls in alternation with the tape hubs in said second pair of tape hubs (column 3, lines 31 – 34), with one tape hub in said first pair of tape hubs being disposed adjacent a first side of said central space and one tape hub of said second pair of tape

hubs being disposed adjacent a second side of said central space, opposite said first side of said central space (column 3, lines 30 – 41)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 - 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams in view of Saliba et al (US 6267313).

(1) with regards to claim 3:

Adams discloses all of the subject matter above except for a holder wherein each of said first magnetic recording tape and said second magnetic recording tape has a width, measured perpendicular to said transport direction and parallel to said rotational axes of said first and second pairs of tape hubs, which is greater than approximately 24 mm

However, Saliba et al teaches that a holder wherein each of said first tape and said second tape has a width, measured perpendicular to said transport direction and parallel to said rotational axes of said first and second pairs of tape hubs, which is greater than approximately 24 mm (column 3, lines 65 – 66)

It is desirable to use wide tape for higher storage capacity. This need for higher storage continues to increase at a fast rate in the future. A significant advantage of the

Art Unit: 2621

magnetic recording medium is the low cost and large recording area which further increases by using the wide tape.

Therefore it has been obvious to one of ordinary skill in the art at the time the invention was made to include the wide magnetic recording medium as taught by Saliba et al in the invention of Adams in order to achieve the low cost and large recording area by using the wider tape in the recorder of Adams to record data.

(2) with regards to claim 4:

Adams discloses all of the subject matter above except for a holder wherein each of said first magnetic recording tape and said second magnetic recording tape has a width, measured perpendicular to said transport direction and parallel to said rotational axes of said first and second pairs of tape hubs, which is greater than approximately 24 mm and approximately 127 mm.

However, Saliba et al teaches that a holder wherein each of the first tape and the second tape has a width, measured perpendicular to said transport direction and parallel to said rotational axes of said first and second pairs of tape hubs, which is greater than approximately 24 mm and approximately 127 mm (column 3, lines 65 – 66)

It is desirable to use wide tape for higher storage capacity. This need for higher storage continues to increase at a fast rate in the future. A significant advantage of the magnetic recording medium is the low cost and large recording area which further increases by using the wide tape.

Therefore it has been obvious to one of ordinary skill in the art at the time the

invention was made to include the wide magnetic recording medium as taught by Saliba et al in the invention of Adams in order to achieve the low cost and large recording area by using the wider tape in the recorder of Adams to record data

(3) with regards to claim 5:

Adams discloses a holder for magnetic tape comprising::

a first pair of tape hubs having a first magnetic recording tape wound thereon
(figure 3, column 3, lines 12 – 17)

a second pair of tape hubs having a second magnetic recording tape wound thereon (figure 3, column 3, lines 12 – 17)

a holder assembly in which said first and second pairs of tape hubs are rotatably mounted, (column 3, lines 32 – 35) said holder assembly having a central space therein between one of the tape hubs in said first pair and one of the tape hubs in said second pair with each of said first and second magnetic recording tapes spanning said central space (column 3, lines 32 – 35) further clarifying that the tape hubs are mounted in a holder assembly.

first and second magnetic transport direction and recording tapes each being movable in a transport direction (column 3, lines 43 – 49) further clarifying that they are moving in the same plane and parallel to the inboard side.

Adams discloses all of the subject matter above except for a holder having a width perpendicular to said transport direction of at least approximately 24 mm

However, Saliba et al teaches a holder having a width perpendicular to the transport direction of at least approximately 24 mm (column 3, lines 65 – 66)

It is desirable to use wide tape for higher storage capacity. This need for higher storage continues to increase at a fast rate in the future. A significant advantage of the magnetic recording medium is the low cost and large recording area which further increases by using the wide tape.

Therefore it has been obvious to one of ordinary skill in the art at the time the invention was made to include the wide magnetic recording medium as taught by Saliba in the invention of Adams in order to achieve the low cost and large recording area by using the wider tape in the recorder of Adams to record data

(4) with regards to claim 6:

Adams discloses all of the subject matter above except for a holder wherein each of said first and second magnetic recording tape has a width in a range between approximately 24 mm and approximately 127 mm.

However, Saliba et al teaches that a holder wherein each of said first and second magnetic recording tape has a width in a range between approximately 24 mm and approximately 127 mm (column 3, lines 65 – 66)

It is desirable to use wide tape for higher storage capacity. This need for higher storage continues to increase at a fast rate in the future. A significant advantage of the magnetic recording medium is the low cost and large recording area which further increases by using the wide tape.

Therefore it has been obvious to one of ordinary skill in the art at the time the invention was made to include the wide magnetic recording medium as taught by Saliba

et al in the invention of Adams in order to achieve the low cost and large recording area by using the wider tape in the recorder of Adams to record data

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

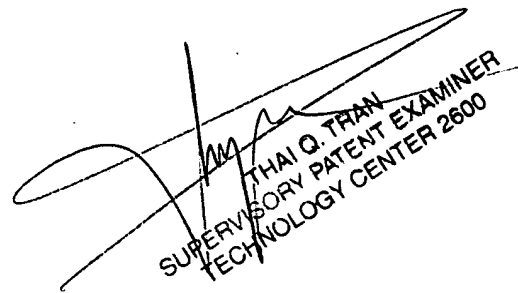
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed Y. Hasan whose telephone number is 571-270-1082. The examiner can normally be reached on 9/8/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S. Y. H.
10/17/2006


THAI Q. TRAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600